

Exhibit B

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DRAFT RESOLUTION

Before the Zoning Administrator in and for the County of Monterey, State of California

In the matter of the application of:

CARMELITE MONASTERY OF CARMEL (PLN240240)

RESOLUTION NO. 25__

Resolution by the County of Monterey Zoning
Administrator

- 1) Finding the project Categorically Exempt pursuant to CEQA Guidelines section 15303 and there are no exceptions pursuant to section 15300.2; and
- 2) Combined Development Permit consisting of a: 1) Coastal Administrative Permit and Design Approval to allow construction of a ground mount photovoltaic system consisting of 57.6 kW and 144 panels; 2) Coastal Development Permit to allow development within 750 feet of known archeological resources; and 3) Coastal Development Permit to allow development within 100 feet of Environmentally Sensitive Habitat Area.

[PLN24024 Carmelite Monastery, 27601 Highway 1, Carmel, Carmel Area Land Use Plan, Coastal Zone (APN: 243-101-002-000)]

The CARMELITE MONASTERY OF CARMEL application (PLN240240) came on for public hearing before the County of Monterey Zoning Administrator on August 14, 2025. Having considered all the written and documentary evidence, the administrative record, the staff report, oral testimony, and other evidence presented, the Zoning Administrator finds and decides as follows:

FINDINGS

1. **FINDING:** **CONSISTENCY** – The Project, as conditioned, is consistent with the applicable plans and policies which designate this area as appropriate for development.
EVIDENCE: a) During the course of review of this application, the project has been reviewed for consistency with the text, policies, and regulations in:
 - the 1982 Monterey County General Plan (General Plan);
 - Carmel Area Land Use Plan (Carmel LUP); and
 - Carmel Area Coastal Implementation Plan, Part 4 (Carmel CIP);
 - Monterey County Zoning Ordinance (Title 20);No conflicts were found to exist. Staff has not received communications during the course of project review arguing that the property is in violation of the Title 20 (Zoning Ordinance). The subject

property is located within the Coastal Zone; therefore, the 2010 Monterey County General Plan does not apply.

- b) Allowed Use: The property is located at 27601 Highway 1, Carmel (Assessor's Parcel Number [APN]: 243-101-002-000), Carmel Area Land Use Plan. The parcel is zoned Public/Quasi Public, and Design Control overlay in the Coastal zone or "PQP-D" which allows the construction of structures accessory to any principal permitted use subject to a Coastal Administrative Permit and Design Approval in each case. The proposed project includes construction of 144 modules grouped into 3 arrays (48 modules each, approximately 1,045 square feet) and associated battery storage equipment within an existing 158 square foot well house. The project requires a Coastal Development Permit to allow for development within 750 feet of a known archaeological resource and an additional Coastal Development Permit to allow for development within 100 feet of ESHA, per Carmel CIP section 20.146.090 and 20.146.040, respectively. As further detailed in the evidence below and Finding 5, adequate findings can be made for the granting of a Coastal Development permit in each case. Therefore, the project is an allowed land use for this site.
- c) Lot Legality. The subject property (12.59 acres, Lot 22), APN: 243-101-002-000, is identified as a legal lot of record through the 1972 Assessor's Map, Book 243, Page 10. Therefore, the County of Monterey recognizes this lot as a legal lot of record.
- d) The project planner conducted a virtual site inspection to verify that the project on the subject parcel conforms to the plans listed above.
- e) Design and Visual Resources. The subject property is located within the public viewshed as illustrated in the Carmel LUP Map A and is identified as a highly sensitive visual resource by virtue of its prominence according to Carmel LUP Policy 2.2.1. Therefore, Policies 2.2.2 and 2.2.3.4 are applicable to ensure development is clearly subordinate to the natural scenic area and is in the least visible portion of the parcel. The proposed photovoltaic system would be located approximately 130 feet east and downhill from the Monastery. Surrounding the property are large oak trees and existing structures, which help blend the proposed photovoltaic system and battery storage from public viewshed points. The system includes three arrays of 48 modules (solar panels) and all associated storage equipment within an existing well house. The area of development is in the least visible area of the property to prevent visibility from the public viewshed and Highway 1. Additionally, Title 20 section 20.44 establishes regulations for Design Control zoning, or "D" districts, which is intended to regulate the location, size, configuration, materials, and colors of development to assure protection of public viewshed and neighborhood character, without imposing undue restrictions on private property. Although the colors and materials would be the standard solar panels consisting of black anodized aluminum, the solar panels will be sited behind the existing Monastery and screened by mature vegetation. Since the back half of the property (East of Highway 1) is downhill of the existing development, the panels would not be visible from neighboring properties and any common public viewing areas. In the Carmel Area

LUP, Policy 4.3.1 states that development should be sited out of view from major public viewpoints north of San Jose Creek, and the proposed solar panels preserve the open scenic qualities of the area. Therefore, the project as designed and sited assures protection of the public viewshed, is consistent with the neighborhood character, and assures visual integrity of the Carmel Area.

- f) Development Standards. The project is within the PQP zoning district and is subject to development standards established in Title 20 section 20.40.060. For accessory structures, the required minimum setbacks are 50 feet front, 6 feet side on front one-half of the property and 1 foot side on the rear one-half of the property, and 1 foot rear, and the maximum allowed height is 15 feet as measured from average natural grade. As delineated on the attached project plans the photovoltaic system is sited more than 150 feet from the front of the property, 20 feet from the side, and has a proposed height of 6 feet from average natural grade. Therefore, the proposed project complies with applicable site development standards as outlined in Title 20 section 20.40.060.
- g) Cultural Resources. Carmel CIP section 20.146.090 requires that development of any kind in areas considered to be archaeologically sensitive shall include field surveys and impact analysis by qualified individuals to precisely determine resources that may be impacted by the proposed project. The Monterey County Geographic Information System (GIS) identifies the subject property to be within a high archaeological sensitivity area and within 750 feet of known archaeological resources. As such, a Coastal Development Permit has been applied to this project as required by Carmel CIP section 20.146.090.A.

A previous report (LIB120268) for the subject property identified scattered prehistoric shell fragments around the Monastery which appeared to be associated with a known recorded site on the property. As such, the applicant submitted a Phase I and Phase II Archaeological Report (LIB250080) that reviewed the proposed development area. A field survey and auger testing were conducted directly where the proposed photovoltaic system is to be installed, and results were negative for any significant resources. Although the subject property has a known recorded site and previous findings, this is well outside of the project area. Carmel CIP section 20.146.090.D.3 requires development where archaeological sites are located to be designed to avoid impacts to such resources. The project is to be sited towards the back half of the property, in area confirmed to have negative findings for archaeological resources and the project includes minimal ground disturbance to install the solar panels. As recommended from the project archaeologist, Condition No. 3 has been applied and requires the contractor to stop work if previously unidentified resources are discovered during construction. Additionally, Condition No. 5 requires that a pre-construction cultural resource sensitivity training take place with all construction personnel prior to any ground disturbing activities. As designed and conditioned, the project ensures protection of the site's cultural resources consistent with the Carmel LUP and Carmel CIP.

- h) Historic Resource. The Carmelite Monastery is identified as an historic resource on the list of Monterey County Registry of Historic Resources; however, the development of the ground-mount photovoltaic solar system does not include any modifications to the Carmelite Monastery. The solar photovoltaic system is to be sited in area once used for prescribed burns, with associated battery storage equipment in an existing well house. No exterior modifications are proposed to the well house. Therefore, the proposed development does not alter the significant architectural features nor does the development adversely affect the character of the historic nature of the Monastery.
- i) Environmentally Sensitive Habitat Areas. As demonstrated in Finding 5, the development is consistent with biological resource policies of the Carmel LUP.
- j) Public Access. As demonstrated in Finding 6, the development is consistent with public access policies of the Carmel LUP.
- k) Land Use Advisory Committee. The proposed project was reviewed by the Carmel Land Use Advisory Committee May 19, 2025. The committee recommended approval of the project by a vote of 3-0 in support of the project.
- l) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning for the proposed development found in Project File PLN240240.

2. **FINDING:**

EVIDENCE:

- SITE SUITABILITY** – The site is physically suitable for the use proposed.
- a) The project has been reviewed for site suitability by the following departments and agencies: HCD- Planning, Carmel Highlands Fire Protection District, HCD-Engineering Services, HCD-Environmental Services, and Environmental Health Bureau. There has been no indication from these departments/agencies that the site is not suitable for the proposed development. Conditions recommended have been incorporated.
 - b) The following reports have been prepared:
 - Phase 1 and Phase 2 Archaeological Assessment in Support of the Carmelite Monastery Solar Array Project (LIB250080) prepared by Susan Morley, Marina, CA on December 4, 2024;
 - Biological Assessment for proposed Carmelite Monastery – Solar Array Project (LIB250079) prepared by Nicole Nedeff, Carmel Valley, CA on December 12, 2024;

Upon independent review, staff concurs with conclusions of the report. There are no physical or environmental constraints that render the site unsuitable for the use proposed.
 - c) Staff conducted a virtual site inspection to verify that the site is suitable for this use.
 - d) The application, project plans, and related support materials submitted by the project applicant to the County of Monterey HCD - Planning for the proposed development found in Project File PLN240240.

3. **FINDING:**

HEALTH AND SAFETY - The establishment, maintenance, or operation of the use or structure applied for, will not, under the circumstances of the particular case, be detrimental to the health, safety,

peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use; or be detrimental or injurious to property and improvements in the neighborhood; or to the general welfare of the County.

- EVIDENCE:**
- a) The project was reviewed by HCD - Planning, Carmel Highlands Fire Protection District, HCD- Engineering Services, Environmental Health Bureau, and HCD - Environmental Services. The respective agencies have recommended conditions, where appropriate, to ensure that the project will not have an adverse effect on the health, safety, and welfare of persons either residing or working in the neighborhood.
 - b) All necessary public facilities are available to the subject property. Sewer service will be provided; the wastewater collection and treatment system has adequate remaining capacity for sewage disposal. Potable water is provided by the California American Water Company. The proposed solar photovoltaic system does not require additional fixtures or connections.
 - c) Staff conducted a virtual site inspection to verify that the site is suitable for this use.
 - d) The application, project plans, and related support materials submitted by the project applicant to the County of Monterey HCD - Planning for the proposed development found in Project File PLN240240.

4. **FINDING:** **NO VIOLATIONS** - The subject property is in compliance with all rules and regulations pertaining to zoning uses, subdivision, and any other applicable provisions of the County's zoning ordinance. No violations exist on the property.

- EVIDENCE:**
- a) Staff reviewed County of Monterey HCD - Planning and Building Services Department records and is not aware of any violations existing on subject property.
 - b) Staff conducted a virtual site inspection and researched County records to assess if any violation exists on the subject property.
 - c) There are no known violations on the subject parcel.
 - d) The application, plans and supporting materials submitted by the project applicant to County of Monterey HCD-Planning for the proposed development are found in Project File PLN240240.

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5. **FINDING:** **ENVIRONMENTALLY SENSITIVE HABITAT** – The siting, location, size and design has been established to minimize impact to environmentally sensitive habitat areas and has been limited to that required for the overall health and long-term maintenance of the property.

- EVIDENCE:**
- a) The project includes development within 100 feet of ESHA. In accordance with Carmel CIP section 20.146.040, a Coastal Development Permit is required and the criteria to grant said permit have been met.
 - b) P Carmel CIP Plan section 20.146.040 requires that development of any kind within any known environmentally sensitive habitat areas shall include field surveys and impact analysis by qualified individuals to precisely determine habitat area, including environmentally sensitive habitat area (ESHA). The Monterey County GIS, specifically the

California Natural Diversity Database (CNDDDB), identifies the subject property to be within 100 feet of potential ESHA on the property. The applicant submitted a Biological report (LIB250079; **Exhibit D**), which indicated that there are no significant natural vegetation within the project area. However, the subject parcel is located north of the San Jose Creek, which is known to contain dense riparian habitat. Additionally, rare shrubs and wildlife species typically found in Coast Live Oak Woodland, Coastal Scrub, and Monterey Pine Forest were identified to be outside of the proposed project area. Carmel LUP Policy 2.3.1 identifies the riparian habitat, Coast Live Oak Woodland, Coastal Scrub, and Monterey Pine Forest to be environmentally sensitive habitat areas. The biologist conducted a site survey which identified that there were no sensitive or special status habitat observed within the proposed project site and that the environmentally sensitive habitat areas were approximately 200 feet away from the proposed development area of the photovoltaic system. The project biologist also confirmed that the CNDDDB illustrated sitings of special status species occurring along San Jose Creek such as California Red-legged Frog. Since these species are known to travel beyond their habitat, staff conservatively included a Coastal Development Permit for development within 100 feet of ESHA.

- c) Carmel CIP sections 20.146.040.B.3 and 20.146.040.C.2 identifies land uses adjacent to locations of ESHA to be compatible with the long-term maintenance of the resource, and appropriately setback from the riparian corridor. The proposed development is to be installed in an area outside of sensitive habitat, approximately 200 feet from the closest identified resource. Condition No. 5 for a pre-construction meeting for biological resource training take place should the likelihood California Red-Legged Frog is encountered. As proposed and conditioned, the project is consistent with the policies and regulations outlined in CAR LUP and CAR CIP and avoids impacts on nearby sensitive habitat areas and does not introduce any uses or development that are incompatible with the continuance of those habitat areas.
- d) No significant long-term effects on the environmentally sensitive habitat are anticipated. The project as proposed will not significantly reduce the availability of wildlife over the long term as the site as surrounding areas which are to remain untouched.
- e) Staff conducted a virtual site inspection to verify that the site and proposed project meet the criteria for an exemption.
- f) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning for the proposed development found in Project File PLN24040.
- g) Staff conducted a virtual site inspection to verify that the site is suitable for this use.
- h) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning for the proposed development found in Project File PLN240240.

6. FINDING:

PUBLIC ACCESS- The project is in conformance with the public access and recreation policies of the Coastal Act (specifically Chapter 3

- of the Coastal Act of 1976, commencing with Section 30200 of the Public Resources Code) and applicable Local Coastal Program, and does not interfere with any form of historic public use or trust rights.
- EVIDENCE:**
- a) No access is required as part of the project as no substantial adverse impact on access, either individually or cumulatively, as described in Carmel CIP Section 20.146.130, can be demonstrated.
 - b) Although the Carmelite Monastery is identified as an historic resource on the list of Monterey County Registry of Historic Resources, no proposed development or changes are included in this application to this part of the property. As discussed in Finding 1, the proposed development will be sited approximately 130 feet from the Carmelite Monastery with associated battery energy storage equipment within an existing well house. No exterior changes to the existing structures will be made as part of this application.
 - c) The subject property is described as an area where the Local Coastal Program requires physical public access (Figure 3, Local Coastal Program Public Access, in the Carmel LUP).
 - d) The subject project site is identified as an area where the Local Coastal Program requires visual public access (Map A- Local Coastal Program General Viewshed, in the Carmel LUP).
 - e) Based on the project location, and its topographical relationship to visual public access points in the area, the development proposal will not interfere with visual access along Highway 1. Consistent with Carmel LUP Policy 5.3.2.4, the proposed development will not block significant public views toward the ocean and will not adversely impact the public viewshed or scenic character in the project vicinity.
 - f) The application, plans and supporting materials submitted by the project applicant to County of Monterey HCD-Planning for the proposed development are found in Project File PLN240240.

7. **FINDING:** **CEQA (Exempt):** - The project is categorically exempt from environmental review and no unusual circumstances were identified to exist for the proposed project.

- EVIDENCE:**
- a) California Environmental Quality Act (CEQA) Guidelines Section 15303 categorically exempts construction of new electrical extension and conversion of an existing accessory structure.
 - b) The project includes construction of a new photovoltaic system and conversion of an existing well house for battery storage, which meets this exemption.
 - c) No adverse environmental effects were identified during staff review of the development application during a virtual site visit.
 - d) None of the exceptions under CEQA Guidelines Section 15300.2 apply to this project. There is no significant effect on the environment due to unusual circumstances. There is no cumulative impact without any prior successive projects of the same type in the same place, over time and no new land use is proposed. The site is not included on any list compiled pursuant to Section 65962.5 of the Government Code to be considered on a hazardous waste site. Historical resources found in the archaeological report (Finding 1.g) are less than significant and would

not be impacted by the proposed development. It is not visible from Highway 1 or designated public access areas/vista points.

- e) Staff conducted a virtual site inspection to verify that the site is suitable for this use.
- f) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning for the proposed development found in Project File PLN240240.

8. **FINDING:** **APPEALABILITY** - The decision on this project may be appealed to the Board of Supervisors and the California Coastal Commission.
- EVIDENCE:** a) Board of Supervisors. Pursuant to Title 20, Section 20.86.030, an appeal may be made to the Board of Supervisors by any public agency or person aggrieved by a decision of an Appropriate Authority other than the Board of Supervisors.
- b) Coastal Commission. Pursuant to Title 20, Section 20.86.080.A, the project is subject to appeal by/to the California Coastal Commission because it involves development that is permitted in the underlying zone as a conditional use.

DECISION

NOW, THEREFORE, based on the above findings and evidence, the County of Monterey Zoning Administrator does hereby:

1. Find the project involves construction of a new for a new photovoltaic system, which qualifies as a Class 3 Categorical Exemption pursuant to Section 15303(d) and 15303(e) of the CEQA guidelines and there are no exceptions pursuant to Section 15300.2 of the CEQA guidelines; and
2. Approve a Combined Development Permit consisting of a: 1) Coastal Administrative Permit and Design Approval to allow a ground mount photovoltaic system consisting of 57.6 kW and 144 panels; 2) Coastal Development Permit for development within 750 feet of known archeological resources; and 3) Coastal Development Permit to allow development within 100 feet of Environmentally Sensitive Habitat Area.

All general conformance with attached plans and subject to the attached 5 conditions, all being attached hereto and incorporated herein by reference.

PASSED AND ADOPTED this 14th day of August, 2025.

Mike Novo, AICP
Zoning Administrator

COPY OF THIS DECISION MAILED TO APPLICANT ON _____.

THIS APPLICATION IS APPEALABLE TO THE BOARD OF SUPERVISORS.

IF ANYONE WISHES TO APPEAL THIS DECISION, AN APPEAL FORM MUST BE COMPLETED AND SUBMITTED TO THE CLERK TO THE BOARD ALONG WITH THE APPROPRIATE FILING FEE ON OR BEFORE _____.

THIS PROJECT IS LOCATED IN THE COASTAL ZONE AND IS APPEALABLE TO THE COASTAL COMMISSION. UPON RECEIPT OF NOTIFICATION OF THE FINAL LOCAL ACTION NOTICE (FLAN) STATING THE DECISION BY THE FINAL DECISION MAKING BODY, THE COMMISSION ESTABLISHES A 10 WORKING DAY APPEAL PERIOD. AN APPEAL FORM MUST BE FILED WITH THE COASTAL COMMISSION. FOR FURTHER INFORMATION, CONTACT THE COASTAL COMMISSION AT (831) 427-4863 OR AT 725 FRONT STREET, SUITE 300, SANTA CRUZ, CA

This decision, if this is the final administrative decision, is subject to judicial review pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6. Any Petition for Writ of Mandate must be filed with the Court no later than the 90th day following the date on which this decision becomes final.

NOTES

1. You will need a building permit and must comply with the Monterey County Building Ordinance in every respect.

Additionally, the Zoning Ordinance provides that no building permit shall be issued, nor any use conducted, otherwise than in accordance with the conditions and terms of the permit granted or

until ten days after the mailing of notice of the granting of the permit by the appropriate authority, or after granting of the permit by the Board of Supervisors in the event of appeal.

Do not start any construction or occupy any building until you have obtained the necessary permits and use clearances from Monterey County RMA-Planning and RMA-Building Services Department office in Salinas.

2. This permit expires 3 years after the above date of granting thereof unless construction or use is started within this period.

County of Monterey HCD Planning

DRAFT Conditions of Approval/Implementation Plan/Mitigation Monitoring and Reporting Plan

PLN240240

1. PD001 - SPECIFIC USES ONLY

Responsible Department: Planning

**Condition/Mitigation
Monitoring Measure:**

This Combined Development permit (PLN240240) allows a 1) Coastal Administrative Permit and Design Approval to allow construction of a ground mount photovoltaic system consisting of 57.6 kW and 144 panels; 2) Coastal Development Permit to allow development within 750 feet of known archeological resources; and 3) Coastal Development Permit to allow development within 100 feet of Environmentally Sensitive Habitat Area. The property is located at 27601 Highway 1, Carmel (Assessor's Parcel Number 243-101-002-000), Carmel Area Land Use Plan, Coastal Zone. This permit was approved in accordance with County ordinances and land use regulations subject to the terms and conditions described in the project file. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of HCD - Planning. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. To the extent that the County has delegated any condition compliance or mitigation monitoring to the Monterey County Water Resources Agency, the Water Resources Agency shall provide all information requested by the County and the County shall bear ultimate responsibility to ensure that conditions and mitigation measures are properly fulfilled. (HCD - Planning)

**Compliance or
Monitoring
Action to be
Performed:**

The Owner/Applicant shall adhere to conditions and uses specified in the permit on an on-going basis unless otherwise stated.

2. PD002 - NOTICE PERMIT APPROVAL

Responsible Department: Planning

Condition/Mitigation The applicant shall record a Permit Approval Notice. This notice shall state:

Monitoring Measure: "A Combined Development Permit (Resolution Number _____) was approved by the Zoning Administrator for Assessor's Parcel Number 243-101-002-000 on August 14, 2025. The permit was granted subject to 5 conditions of approval which run with the land. A copy of the permit is on file with Monterey County HCD - Planning."

Proof of recordation of this notice shall be furnished to the Director of HCD - Planning prior to issuance of grading and building permits, Certificates of Compliance, or commencement of use, whichever occurs first and as applicable. (HCD - Planning)

Compliance or Prior to the issuance of grading and building permits, certificates of compliance, or
Monitoring commencement of use, whichever occurs first and as applicable, the Owner/Applicant
Action to be shall provide proof of recordation of this notice to the HCD - Planning.
Performed:

3. PD003(B) - CULTURAL RESOURCES POSITIVE ARCHAEOLOGICAL REPORT

Responsible Department: Planning

Condition/Mitigation Monitoring Measure: If archaeological resources or human remains are accidentally discovered during construction, the following steps will be taken:

There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of the county in which the remain are discovered must be contacted to determine that no investigation of the cause of death is required.

If the coroner determines the remains to be Native American:

- The coroner shall contact the Native American Heritage Commission and HCD - Planning within 24 hours.
- The Native American Heritage Commission shall identify the person or persons from a recognized local tribe of the Esselen, Salinan, Costonoans/Ohlone and Chumash tribal groups, as appropriate, to be the most likely descendant.
- The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.9 and 5097.993, Or

Where the following conditions occur, the landowner or his authorized representatives shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance:

1. The Native American Heritage Commission is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 24 hours after being notified by the commission.
2. The descendant identified fails to make a recommendation; or
3. The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

(HCD - Planning)

Compliance or Monitoring Action to be Performed: Prior to the issuance of any construction permits, the Owner/Applicant, per the archaeologist, shall submit the contract with a Registered Professional Archaeologist for on-call archaeological services should resources be discovered during construction activities. Submit the letter to the Director of the HCD – Planning for approval.

Prior to the issuance of any construction permits, the Owner/Applicant shall include requirements of this condition as a note on all construction plans.

Prior to Final, the Owner/Applicant, per the Archaeologist, shall submit a report or letter from the archaeologist summarizing their methods, findings, and recommendations if their services are needed during construction or if no resources were found.

4. PD016 - NOTICE OF REPORT

Responsible Department: Planning

Condition/Mitigation Monitoring Measure: Prior to issuance of building or grading permits, a notice shall be recorded with the Monterey County Recorder which states:
"Biological Assessment for proposed Carmelite Monastery – Solar Array Project" (LIB250079), was prepared by Nicole Nedeff, Carmel Valley, CA on December 12, 2024, and is on file in Monterey County HCD - Planning.

"Phase 1 and Phase 2 Archaeological Assessment in Support of the Carmelite Monastery Solar Array Project" (LIB250080) was prepared by Susan Morley, Marina, CA on December 4, 2024, and is on file in Monterey County HCD - Planning.

All development shall be in accordance with these reports."
(HCD - Planning)

Compliance or Monitoring Action to be Performed: Prior to the issuance of grading and building permits, the Owner/Applicant shall submit proof of recordation of this notice to HCD - Planning.

Prior to occupancy, the Owner/Applicant shall submit proof, for review and approval, that all development has been implemented in accordance with the report to the HCD - Planning.

5. PD052 - PRE-CONSTRUCTION MEETING

Responsible Department: Planning

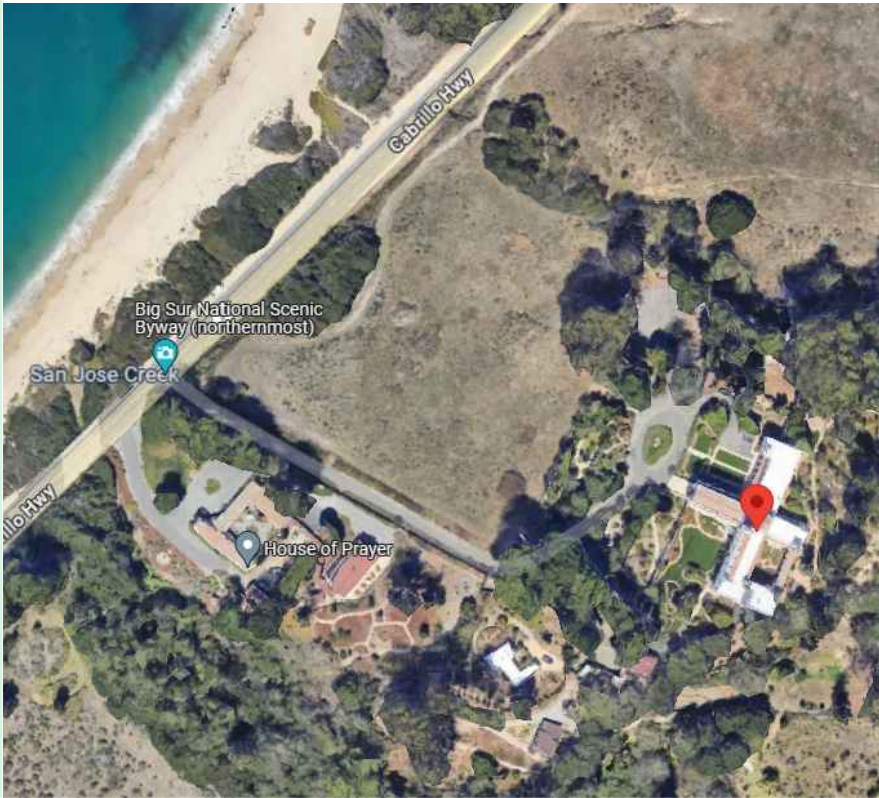
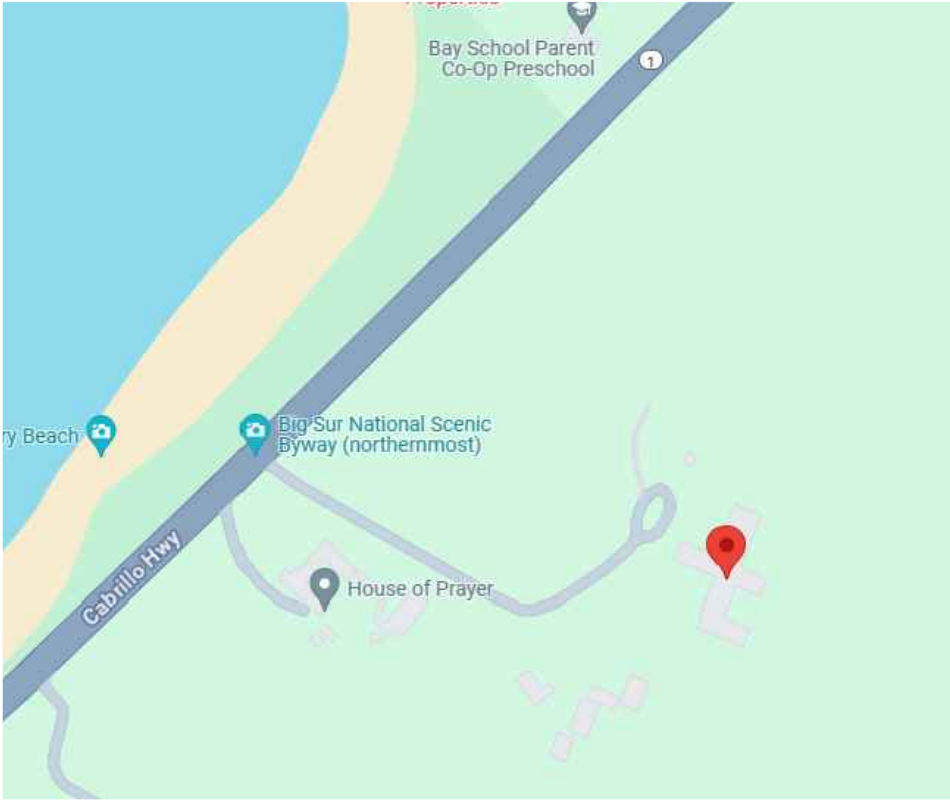
Condition/Mitigation Monitoring Measure: Prior to the commencement of any grading or construction activities, a pre-construction meeting shall be held on the site by a qualified biologist and archaeologist. The meeting shall include representatives of each of the selected contractors, any consultant who will conduct required monitoring, the Owner/Applicant, the HCD -Planning Department and any other appropriate County Departments. The purpose of the meeting is to review the conditions of approval that are applicable to the grading and construction of the approved development and applicable recommendations identified in the biological and archaeological reports. (HCD - Planning)

Compliance or Monitoring Action to be Performed: Prior to commencement of any grading or construction activities, the Owner/Applicant shall contact HCD -Planning to schedule a pre-construction meeting prior to commencement of any grading or construction activities. The Owner/Applicant shall be responsible for ensuring that all appropriate contractors and technical consultants are in attendance. HCD -Planning staff shall be responsible for identifying and notifying other County Departments that should attend the meeting (if applicable).

GENERAL NOTES:

1. LOCAL UTILITY PROVIDER SHALL BE NOTIFIED PRIOR TO USE AND ACTIVATION OF ANY SOLAR PHOTOVOLTAIC INSTALLATION.
2. NO SHEET METAL OR TECH SCREWS SHALL BE USED TO GROUND DISCONNECT ENCLOSURE WITH TIN-PLATED ALUMINUM LUGS; PROPER GROUNDING/GROUND BAR KITS SHOULD BE USED.
3. ALL EXTERIOR CONDUIT, FITTINGS, AND BOXES SHALL BE WITH RAIN TIGHT AND APPROVED FOR USE IN WET LOCATIONS.
4. BACK-FED BREAKER MUST BE AT THE OPPOSITE END OF BUS BAR FROM THE MAIN BREAKER OR MAIN LUG SUPPLYING CURRENT FROM THE UTILITIES.
5. ALL CONDUCTORS EXPOSED TO SUNLIGHT ARE LISTED AS SUNLIGHT RESISTANT.
6. INSTALLER TO FOLLOW ALL LOCAL JURISDICTION GUIDELINES.
7. GROUNDING BUSHINGS ARE REQUIRED AROUND PRE-PUNCHED CONCENTRIC KNOCKOUTS ON THE DC SIDE OF THE SYSTEM.
8. DRAWINGS ARE DIAGRAMMATIC ONLY. THE LOCATION AND ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR UNLESS OTHERWISE NOTED OR STANDARDIZED.
9. ALL EQUATIONS ACCOUNT FOR WORST CASE CONDITIONS.
10. IF A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, OVERCURRENT PROTECTION, GROUNDING SYSTEMS, ETC. (ALL EQUIPMENT AND MATERIALS) THE CONTRACTOR AND OR HOME OWNER SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS IN THE SPECIFICATIONS OR NOTED ON THE PLANS TO ENSURE COMPLETE COMPLIANCE WITH ALL CODES AND TO ENSURE THE LONGEVITY AND SAFETY OF THE OPERABLE SYSTEM.
11. ALL OUTDOOR EQUIPMENT SHALL BE MIN. NEMA 3R RATED.
12. THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH ANY AND ALL REQUIREMENTS GIVEN BY UTILITY COMPANIES.
13. FOR ADDITIONAL EQUIPMENT SPECIFICATIONS, SEE PROVIDED CUT SHEETS.
14. ALL LABELS AND MARKINGS SHALL BE ATTACHED ACCORDING TO REQUIREMENTS BY LOCAL AHJ. THE AHJ MAY HAVE SPECIAL LABEL REQUIREMENTS BEYOND THE SCOPE OF THIS DOCUMENT.

VICINITY MAP



Prepared by(N.H.)

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(949) 872-8236



SCOPE OF WORK:

GROUND MOUNT PV SOLAR

ARRAY / MODULES:

(144)HYUNDAI SOLAR HIS-S400YH(BK) 400W

INVERTER(S) / MICRO / OPTIMIZERS:

(2)SOL-ARK C&I HYBIRD 30K-3P-208V

(36)(9X4)DEKA DD5300 HIGH
VOLTAGE DURATION 5.3
BATTERIES

ARRAY PITCH: 15°

AZIMUTH: 180°

ONE-STORY HOUSE

LISTED BY UNDERWRITERS
LABORATORIES FOR ELECTRICAL
AND FIRE SAFETY(CLASS A FIRE RATING)
1) NO DISCHARGE OF ANY POLLUTANTS
TO ANY STORM DRAIN SYSTEM.
2) UL 1703 FOR MODULES & UL 1741
FOR INVERTERS PER CITY SOLAR
REQUIRMENTS.

THIS PROJECT SHALL COMPLY WITH THE :
2022 CA BUILDING CODE
2022 CA PLUMBING CODE
2022 CA RESIDENTIAL CODE
2022 CA ENERGY CODE
2022 CA MECHANICAL CODE
2022 CA FIRE CODE
2022 CA ELECTRICAL CODE
ORDINANCES OF CITY AND OR COUNTY OF
CARMEL

INDEX SHEET :

- CS1 COVER SHEET
- B2 SITE PLAN
- B3 PLOT PLAN
- B4 EQUIPMENT PLAN
- E5 ELECTRICAL DIAGRAM
- S6 SIDE VIEW
- S7 SIDE VIEW
- S8 SIDE VIEW
- S9 SIDE VIEW
- S10 SIDE VIEW
- B11 WARNING LABELS
- B12 SPECS
- B13 SPECS
- B14 SPECS

UMSTEAD ELECTRIC

MODULES / INVERTER(S) / OPTIMIZERS

(144)HYUNDAI SOLAR HIS-S400YH(BK) 400W
(2)SOL-ARK C&I HYBIRD 30K-3P-208V
(36)DEKA DD5300 HIGH VOLTAGE
DURATION 5.3 BATTERIES

SYSTEM SIZE:

57.600 KW DC (STC)
52.430 KW DC (PTC)
50.857 KW AC (CEC)

COMPLETED:	8/20/2024
REVISION #1:	
REVISION #2:	

PROJECT: PHONE# 831 214 3497

CARMELITE MONASTERY
27601 CA-1
CARMEL, CA 93923
OCCUPANCY TYPE: A GROUP:A-3
APN# 243-101-002-000
36.523111349, -121.9228852910

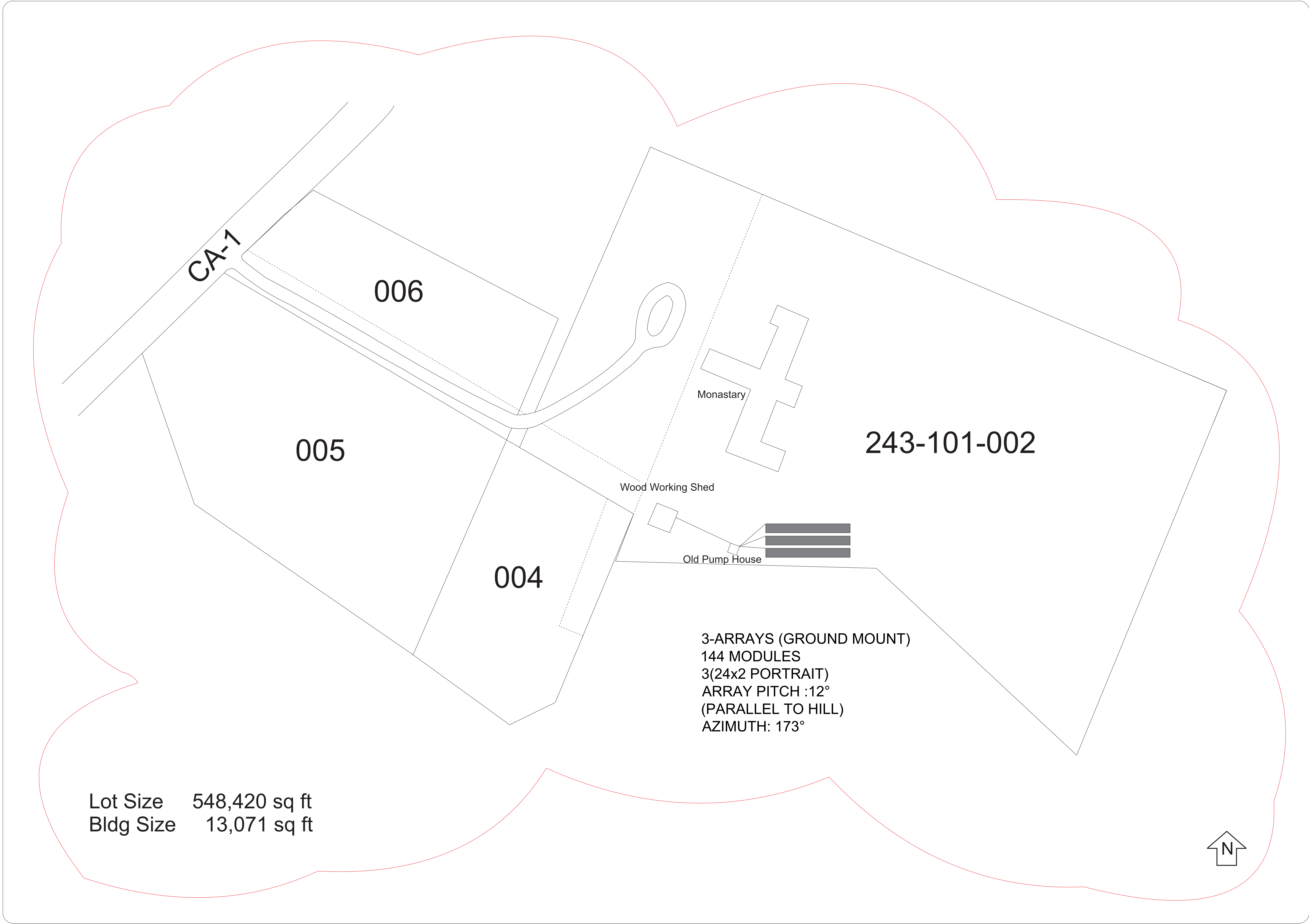
UMSTEAD ELECTRIC
602 S 1ST ST.
KING CITY, CA 93930
PHONE: 831 214 3497

CONTRACTOR: TED UMSTEAD

STATE LICENSE #	778831	LICENSE CLASS	C-10	EXPIRATION DATE	05/31/2026
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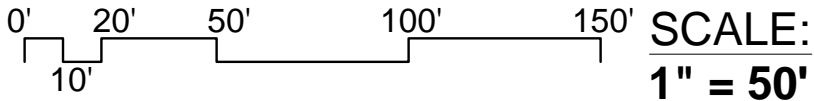
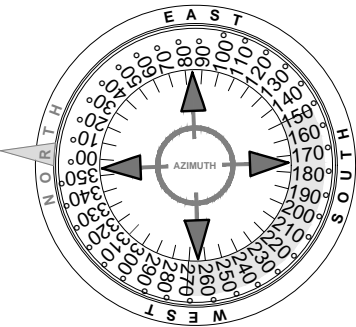
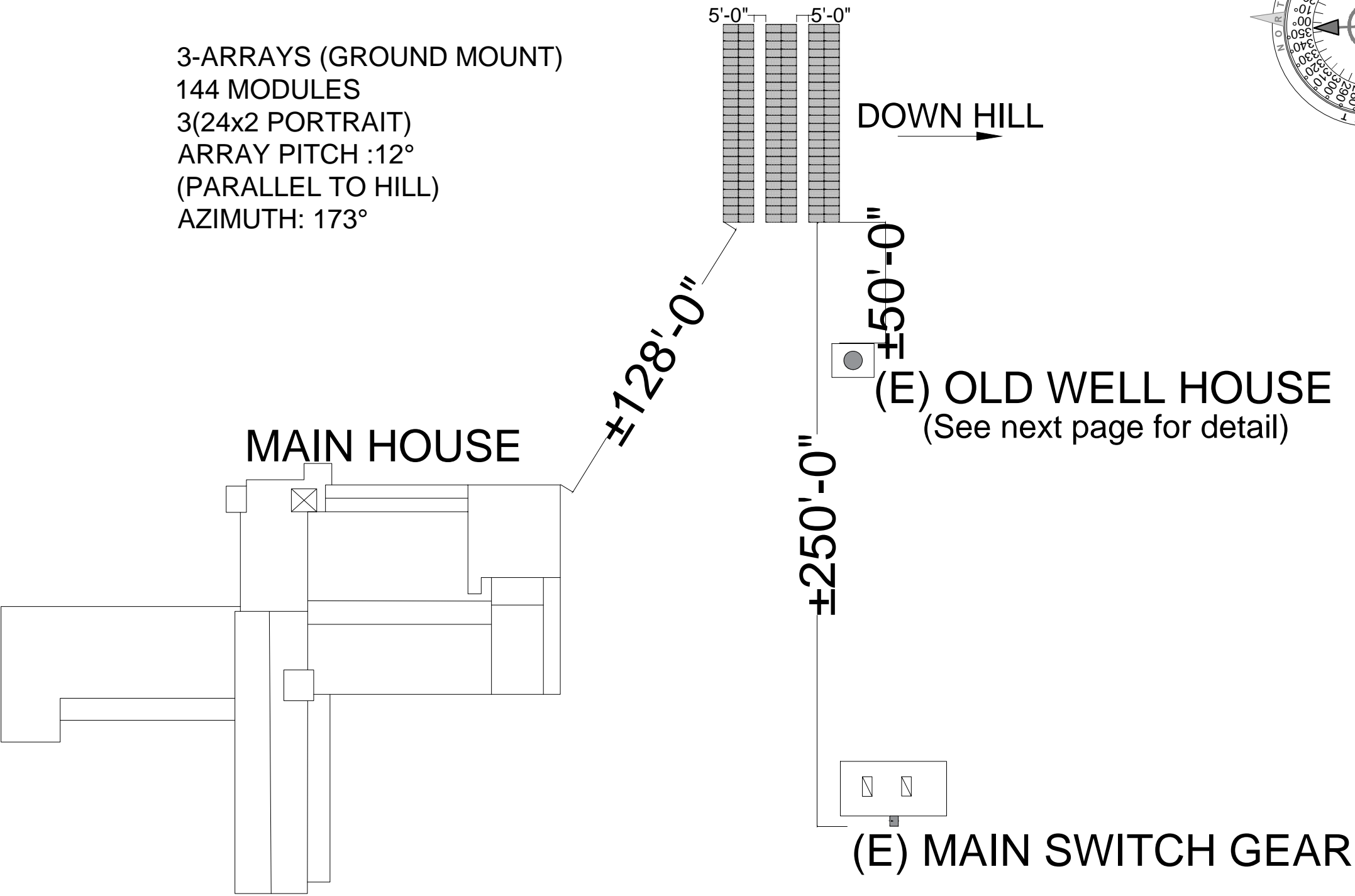
CS1

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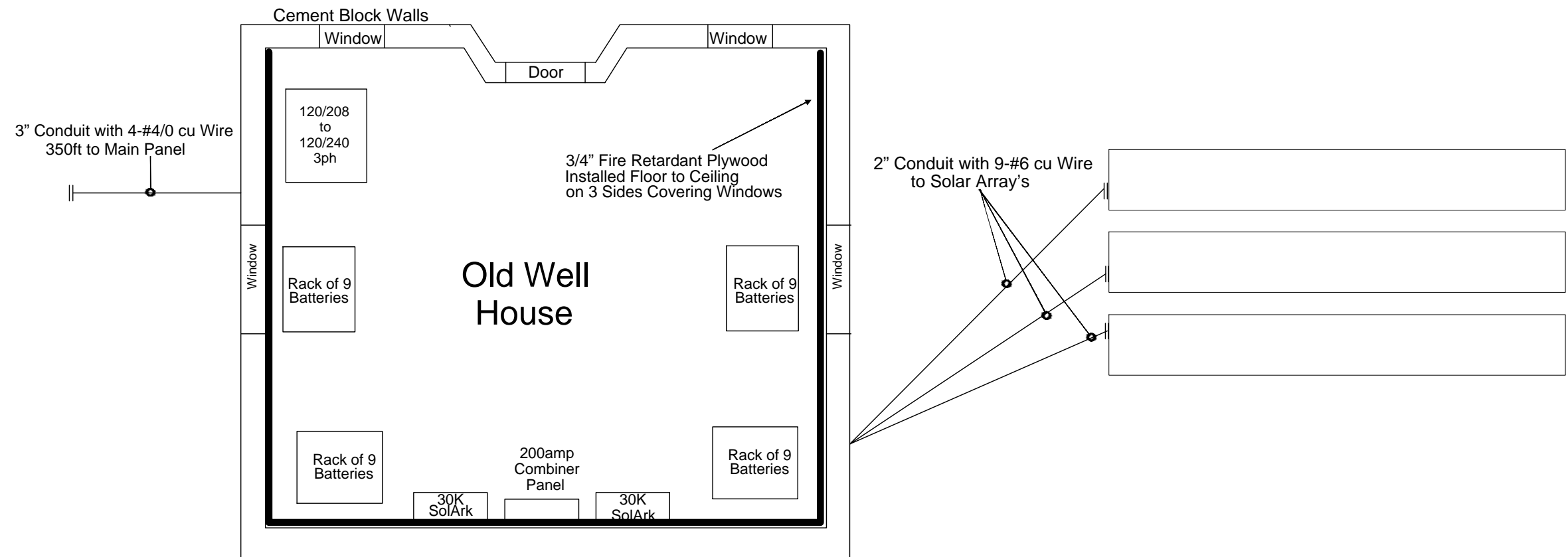
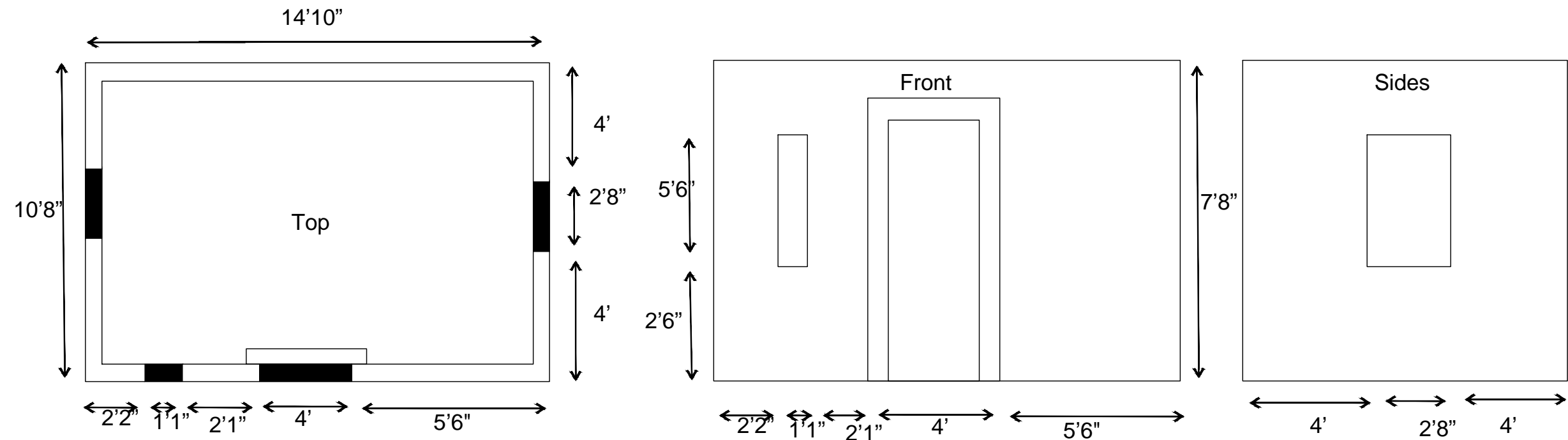
UMSTEAD ELECTRIC			
<div>PROJECT:</div> <div>PHONE# 831 214 3497</div> <div>CARMELITE MONASTERY</div> <div>27601 CA-1</div> <div>CARMEL, CA 93923</div> <div>OCCUPANCY TYPE: A GROUP:A-3</div> <div>APN# 243-101-002-000</div> <div>36.523111349, -121.9228852910</div>		<div>MODULES / INVERTER(S) / OPTIMIZERS</div> <div>(144)HYUNDAI SOLAR HIS-S400YH(BK) 400W</div> <div>(2)SOL-ARK C&I HYBIRD 30K-3P-208V</div> <div>(36)DEKA DD5300 HIGH VOLTAGE</div> <div>DURATION 5.3 BATTERIES</div> <div>SYSTEM SIZE:</div> <div>57.600 KW DC (STC)</div> <div>52.430 KW DC (PTC)</div> <div>50.857 KW AC (CEC)</div>	
<div>UMSTEAD ELECTRIC</div> <div>602 S 1ST ST.</div> <div>KING CITY, CA 93930</div> <div>PHONE: 831 214 3497</div> <div>CONTRACTOR: TED UMSTEAD</div> <div>STATE LICENSE # 778831</div> <div>LICENSE CLASS C-10</div> <div>EXPIRATION DATE 05/31/2026</div>			
B2			

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UMSTEAD ELECTRIC			
UMSTEAD ELECTRIC 602 S 1ST ST. KING CITY, CA 93930 PHONE: 831 214 3497		MODULES / INVERTER(S) / OPTIMIZERS (144) HYUNDAI SOLAR HIS-S400YH(BK) 400W (2) SOL-ARK C&I HYBRID 30K-3P-208V (36) DEKA DD5300 HIGH VOLTAGE DURATION 5.3 BATTERIES	
		SYSTEM SIZE: 57.600 KW DC (STC) 52.430 KW DC (PTC) 50.857 KW AC (CEC)	
PROJECT: PHONE# 831 214 3497		CARMELITE MONASTERY 27601 CA-1 CARMEL, CA 93923 OCCUPANCY TYPE: A GROUP:A-3 APN# 243-101-002-000 36.523111349, -121.9228852910	
CONTRACTOR: TED UMSTEAD		EXPIRATION DATE 05/31/2026	
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UMSTEAD ELECTRIC

MODULES / INVERTER(S) / OPTIMIZERS

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CARMELITE MONASTERY

27601 CA-1

CARMEL, CA 93923

OCCUPANCY TYPE: A GROUP: A-3

APN# 243-101-002-000

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STATE LICENSE # 778831

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B4

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ELECTRICAL NOTES:

- E1. ALL EQUIPMENT IS LISTED FOR USE.
E2. MAXIMUM VOLTAGE DOES NOT EXCEED 600VDC.
E3. ANY EQUIPMENT OR ELECTRICAL MATERIALS USED FOR THIS INSTALLATION SHALL BE NEW AND LISTED BY A RECOGNIZED ELECTRICAL TESTING LABORATORY.
E4. CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT WEATHERPROOF PULL BOXES OR JUNCTION BOXES/COMBINER BOXES PER APPROPRIATE JURISDICTIONAL REQUIREMENTS.
E5. ALL PV ARRAYS SHALL BE EQUIPPED WITH DC GROUND FAULT PROTECTION.
E6. ANY AC COMPONENT SHALL MEET OR EXCEED THE AVAILABLE FAULT CURRENT CALCULATED AT THAT COMPONENT.
E7. ALL MODULES AND ANY RELATED ROOF MOUNTED METALLIC EQUIPMENT SHALL BE PROPERLY GROUNDED.
E8. DC EQUIPMENT SHALL BE 600VDC RATED MINIMUM.
E9. MARKINGS SHALL BE PROVIDED TO INDICATE THAT ALL CONTACTS OF THE DISCONNECT EQUIPMENT MIGHT BE ENERGIZED.
E10. INVERTER(S) SHALL CONTAIN A GROUND FAULT DETECTION AND INTERRUPTION DEVICE.
E11. ALL METALLIC RACEWAYS AND EQUIPMENT SHALL BE BONDED AND ELECTRICALLY CONTINUOUS.
E12. THE POINT OF CONNECTION COMPLIES WITH APPLICABLE CEC/NEC.
E13. BACKFED SOLAR BREAKER(S) SHALL BE INSTALLED AT THE OPPOSITE END OF THE CIRCUIT OR FURTHEST AWAY FROM THE MAIN BREAKER.
E14. ALL WIRE, VOLTAGES, AMPERAGES AND EQUIPMENT IS SIZED ACCORDING TO TEMPERATURE DERATING AND LOCATION.
E15. ONLY COPPER (CU) CONDUCTORS SHALL BE USED. CONDUCTORS SHALL BE STRANDED OR SOLID WITH PROPERLY RATED CONNECTORS.
E16. DISCONNECT SHALL BE WIRED SO NO BLADES ARE ENERGIZED
E17. ALL MODULES AND RACKING SHALL BE GROUNDED USING 2703 UL LISTED RAIL INTEGRATED GROUNDING SYSTEM OR WITH TIN PLATED DIRECT BURIAL RATED LAY IN LUGS USING STAINLESS STEEL HARDWARE, STAR WASHERS, AND THREAD FORMING BOLTS OR WEEBS.
E18. ALL EQUIPMENT SHALL BE GROUNDED, INCLUDING BONDING JUMPERS WHERE NECESSARY ACROSS RAIL SPLICE PLATES TO BOND INDIVIDUAL PIECES OF RAIL THAT ARE CONNECTED AS AN EXPANSION SPLICE.

5' EXTERIOR, 2-1/2" EMT AC CONDUIT
(4)#4/0 CU THHN CONDUCTORS
(1)#1 CU THHN GROUND

TO UTILITY GRID
120/240V
THREE PHASE
BI-DIRECTIONAL
UTILITY METER

MOUNTS AND EQUIPMENT
ENCLOSURES GROUNDED
TO MAIN PANEL GROUND (E) UFER GND

LINE SIDE TAP W/
IRREVERSIBLE
CONNECTORS

250' TRENCH, 24" DEEP,
2-1/2" PVC SCH. 40 AC CONDUIT
(4)#4/0 CU THHN CONDUCTORS
(1)#1 CU THHN GROUND

(N)225A 240V AC DISCONNECT
200A FUSES, 3-POLE, LOCKABLE
KNIFE BLADE, NEMA 3R 6.3 &
NEC690.17

(N) 75 KVA TRANSFORMER
INSIDE OLD WELL HOUSE

120/240V
3PHASE

120/208V
3PHASE

2' EXTERIOR, 2-1/2" EMT AC CONDUIT
(4)#4/0 CU THHN CONDUCTORS
(1)#1 CU THHN GROUND

(E) 120/208V 3PHASE 200A
PANEL W/ 200A MCB
(N) 2- 120A PV BREAKERS
INSIDE OLD WELL HOUSE

PER BREAKER
5' EXTERIOR/INTERIOR 1-1/2" EMT AC CONDUIT
(4)#2 CU THNN CONDUCTORS
(1)#8 CU THNN GROUND
INSIDE OLD WELL HOUSE

PER INVERTER

PTC RATING IS: 364.10W					
72	x 364.1	x 0.965	/ 1000 =	25.298	KW-AC (CEC)
72	x 364.1	/ 1000 =	26.215	KW-DC (PTC)	

VOLTAGE DROP % CALCULATION

VD=100' x 2 x 1.24 x 10.61/1000= 2.63V
% =2.63V / 240V = 0.0110 1.10%

ARRAY RATING

VOC: 271.80 VDC
VMP: 226.20 VDC
ISC: 45.00 ADC
IMP: 42.44 ADC

CEC 690.8(A)(1),(B)(1)EACH

ISC = 11.25 x 1.25 x 1.25 = 17.58A
INVERTER DC MAX. INPUT CURRENT = 36.0A
voc =45.3 x 1.13 x 6 = 307.1V/DC
INVERTER MAX. INPUT VOLTAGE = 550 V/DC

SUB PANEL PV-CB SIZE = 120A

83.4A x 1.25 = 104.25A

CALCULATIONS FOR CURRENT CARRYING
CONDUCTORS:
DC REQUIRED CONDUCTOR AMPACITY

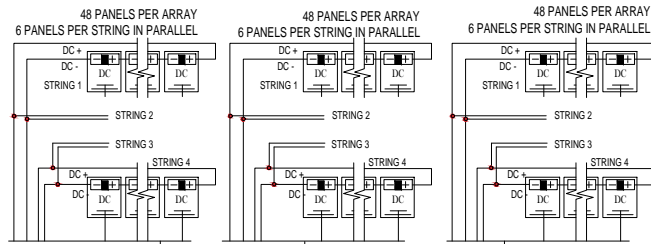
11.25 x 1.25 x 1.25 = 17.58A
AWG #10 DERATED AMPACITY:
40 X 0.58 X 0.8 = 18.6A
% 1) 5 ~ 17.58A

THEREFORE DC WIRE SIZE IS VALID

CALCULATIONS FOR CURRENT CARRYING
CONDUCTORS:
AC REQUIRED CONDUCTOR AMPACITY

83.4A x 1.25 = 104.25A
AWG #2 DERATED AMPACITY:
155 X 0.91 X 0.8 = 112.8A
% 2", (5 ~ 104.25A

THEREFORE AC WIRE SIZE IS VALID



PER ARRAY
100' TRENCH, 24" DEEP,
2" PVC SCH. 40 DC CONDUIT
(4)#6 CU THHN CONDUCTORS
(1)#6 CU THHN GROUND

PER BATTERY
1-1/4" EMT DC CONDUIT
(2)#2/0 CU THWN-2 CONDUCTORS
(1)#4 CU THWN-2 NEUTRAL
90°C WET & DRY

SOL-ARK
47.7kWh
HV (9)
5.3kWh
BATTERIES

SOL-ARK
47.7kWh
HV (9)
5.3kWh
BATTERIES

SOL-ARK
47.7kWh
HV (9)
5.3kWh
BATTERIES

SOL-ARK
47.7kWh
HV (9)
5.3kWh
BATTERIES

INSIDE OLD WELL HOUSE

GUTTER - WIRING MANAGEMENT

INSIDE OLD WELL HOUSE

PER INVERTER
1" EMT DC CONDUIT
(4)#6 CU THNN CONDUCTORS
(1)#6 CU THNN NEUTRAL
(1)#6 CU THNN GROUND

4 STRING PER INVERTER

UNGROUND
INVERTER#2
SOL-ARK
30K-3P-208V[120/208V]
MAX. EFFIC. 96.5%
1 A
550VDC
EGC
INTEGRATED
DC DISCONNECT

UNGROUND
INVERTER#1
SOL-ARK
30K-3P-208V[120/208V]
MAX. EFFIC. 96.5%
1 A
550VDC
EGC
INTEGRATED
DC DISCONNECT

UMSTEAD ELECTRIC

MODULES / INVERTER(S) / OPTIMIZERS

(144)HYUNDAI SOLAR HIS-S400YH(BK) 400W
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DEKA DD5300 HIGH VOLTAGE
(36) DURATION 5.3 BATTERIES

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57.600 KW DC (STC)
52.430 KW DC (PTC)
50.857 KW AC (CEC)

PHONE# 831 214 3497

PROJECT:

CARMELITE MONASTERY

27601 CA-1

CARMEL, CA 93923

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APN# 243-101-002-000

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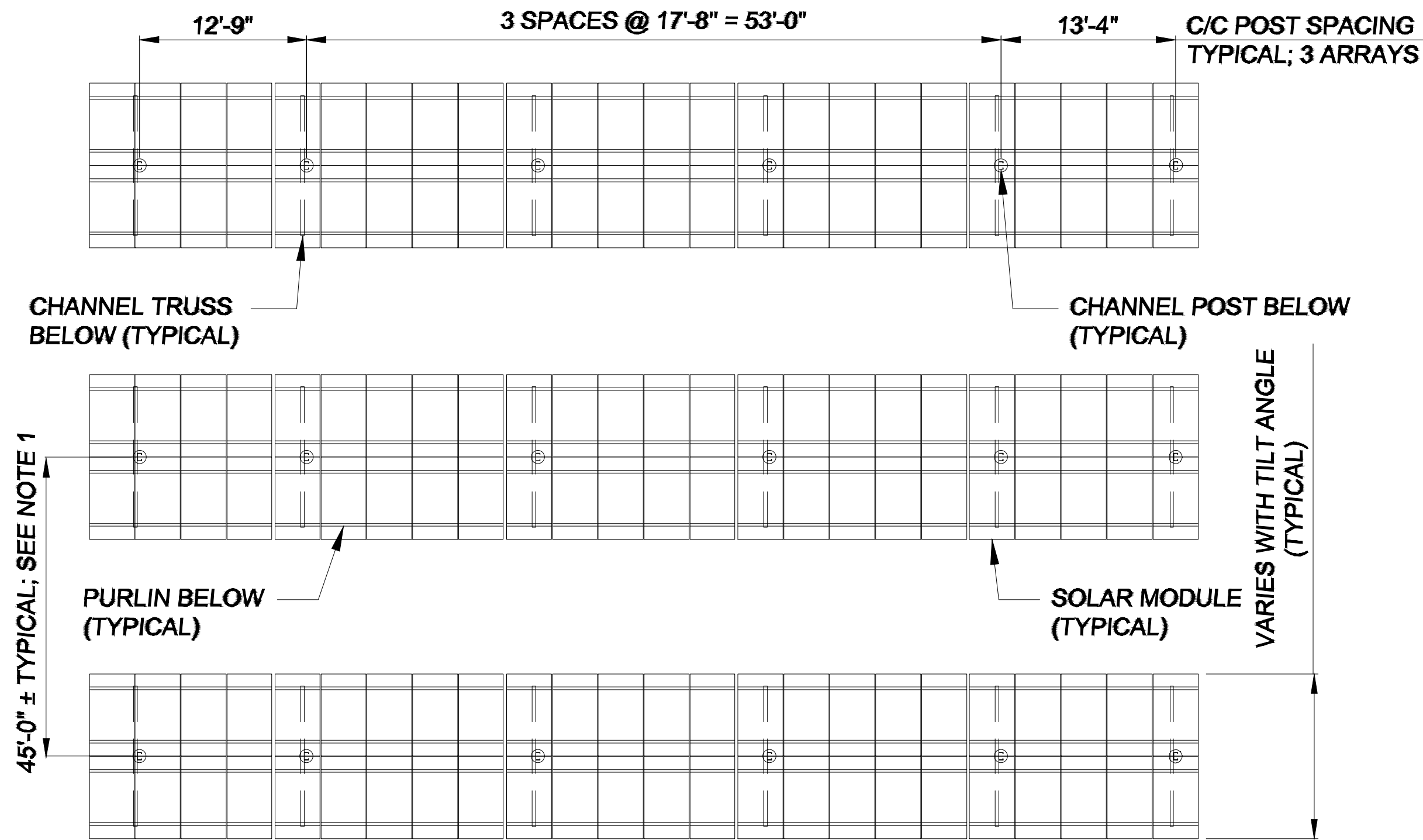
STATE LICENSE # 778831

LICENSE CLASS C-10

EXPIRATION DATE 05/31/2026

E5

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- NOTES**
- 1. C/C POST DIMENSION AS SHOWN MAY BE FIELD MODIFIED; HOWEVER, CONSIDERATION SHOULD BE GIVEN TO SHADING
 - 2. WEST FACING POST SHOWN IN RACKING SIDE ELEVATION VIEW. EAST FACING POST SIMILAR
 - 3. BOTTOM OF POST SHALL BE NO MORE THAN 2'-0" ABOVE BOTTOM OF CONCRETE FOUNDATION
 - 4. FOUNDATION BORINGS SHALL BE MADE INTO UNDISTURBED SOIL
 - 5. ALL CONCRETE SHALL BE AIR ENTRAINED (5% TO 8%), HAVE A 3 1/2" TO 4 1/2" SLUMP, AND OBTAIN A MINIMUM COMPRESSIVE STRENGTH (1%) OF 4,000 PSI AT 28 DAYS
 - 6. SYSTEM SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION GUIDE AND SPECIFICATIONS
 - 7. DRAINAGE SHALL BE DIVERTED AWAY FROM POSTS. POSTS SHALL NOT BE INSTALLED IN SWALES, DRAINAGE AREAS, OR WHERE WATER MAY BE ALLOWED TO FLOW OR STAND
 - 8. EXISTING GRADE SHALL BE NOMINALLY FLAT WITH NO MORE THAN 5" SLOPE
 - 9. DAMAGED COMPONENTS SHALL BE REJECTED AND REPLACED
 - 10. 55 DEGREES (FROM HORIZONTAL) SHALL BE THE MAXIMUM TILT IN THE WINTER AND 15 DEGREES (FROM HORIZONTAL) SHALL BE THE MINIMUM TILT IN THE SUMMER. THE SYSTEM SHALL BE ADJUSTED THROUGHOUT THE YEAR BETWEEN THESE TWO TILT ANGLES
 - 11. SEE SHEETS C1 THROUGH C3 FOR STANDARD CONNECTION DETAILS AND NOTES

TOTAL MODULE COUNT: 144
RACKING PLAN VIEW
SCALE: NONE

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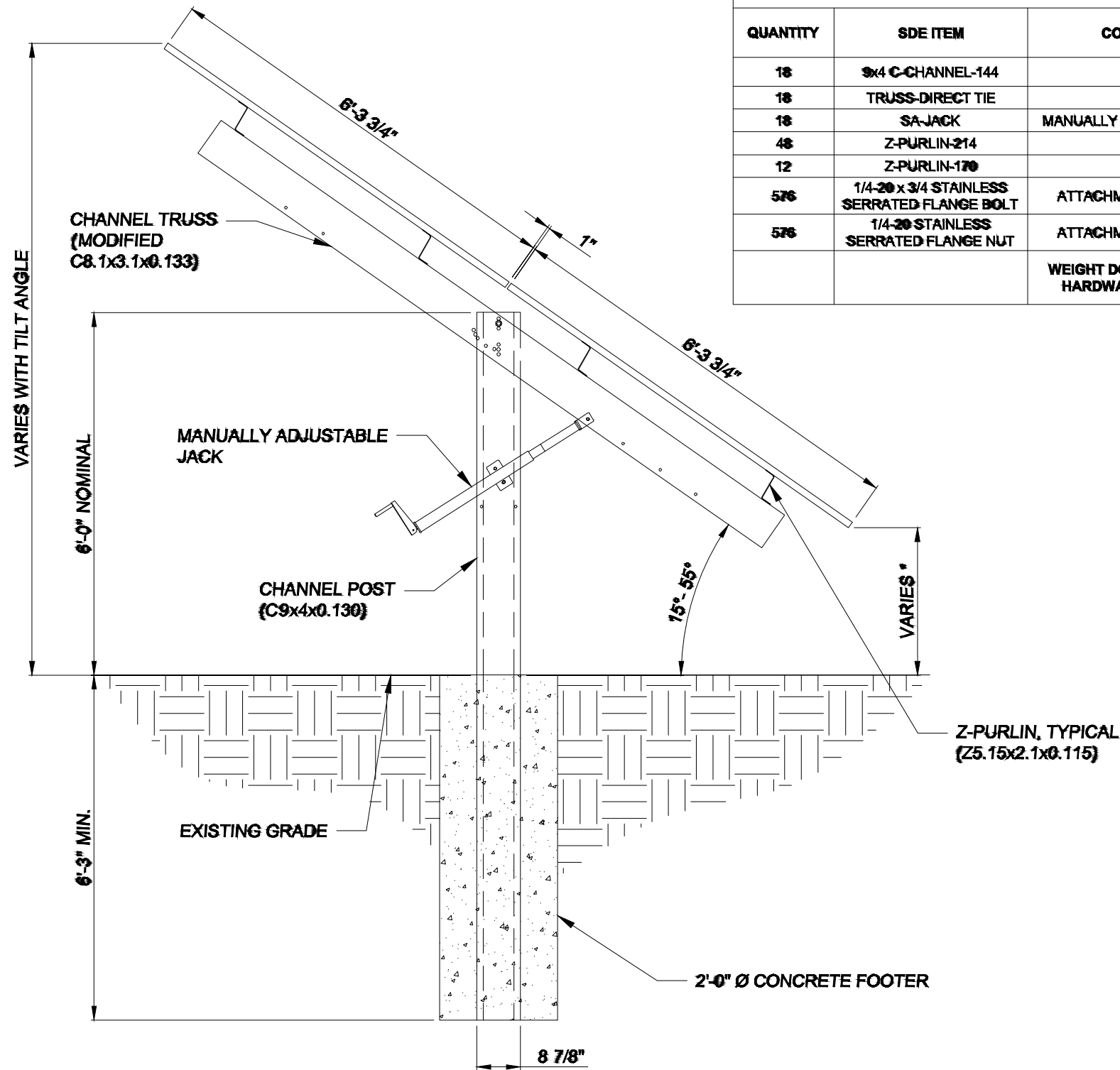
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50.857 KW AC (CEC)

UMSTEAD ELECTRIC



RACKING SIDE ELEVATION VIEW
SCALE: NONE

TRUSS TOP AND BOTTOM FLANGES
NOT SHOWN FOR CLARITY

* APPROX. 1'-4" @ 55 DEGREES
APPROX. 4'-10" @ 15 DEGREES

BILL OF MATERIALS				
QUANTITY	SDE ITEM	COMPONENT	COMPONENT WEIGHT (LBS)	TOTALS (LBS)
18	3x4 C-CHANNEL-144	POST	95	1710
18	TRUSS-DIRECT TIE	TRUSS	75	1350
18	SA-JACK	MANUALLY ADJUSTABLE JACK	15	270
48	Z-PURLIN-214	PURLIN	62	2976
12	Z-PURLIN-170	PURLIN	49	588
576	1/4-20 x 3/4 STAINLESS SERRATED FLANGE BOLT	ATTACHMENT HARDWARE	NA	-
576	1/4-20 STAINLESS SERRATED FLANGE NUT	ATTACHMENT HARDWARE	NA	-
		WEIGHT DOES NOT INCLUDE HARDWARE OR CLAMPS	TOTAL WEIGHT (LBS)	6894

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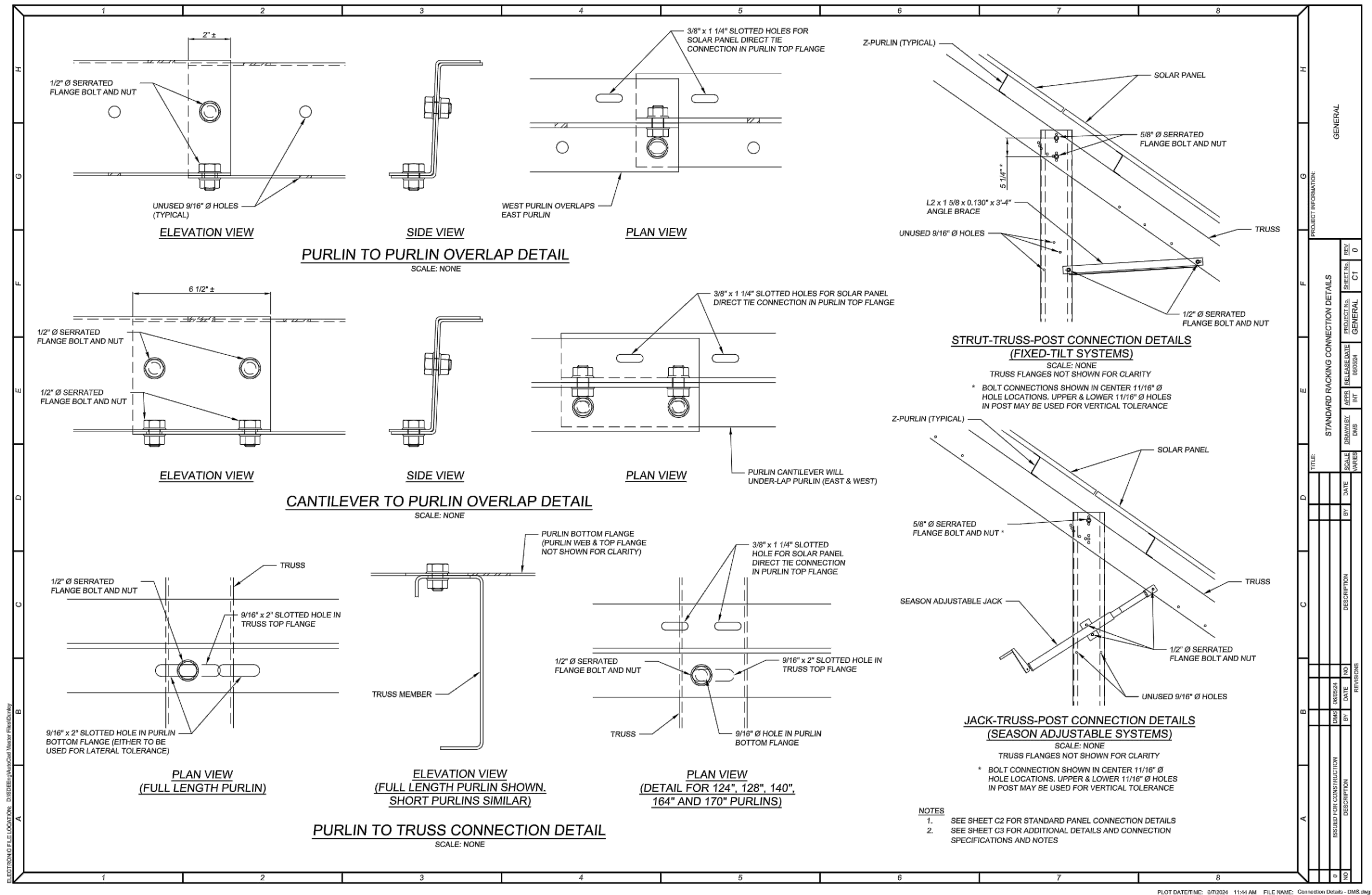
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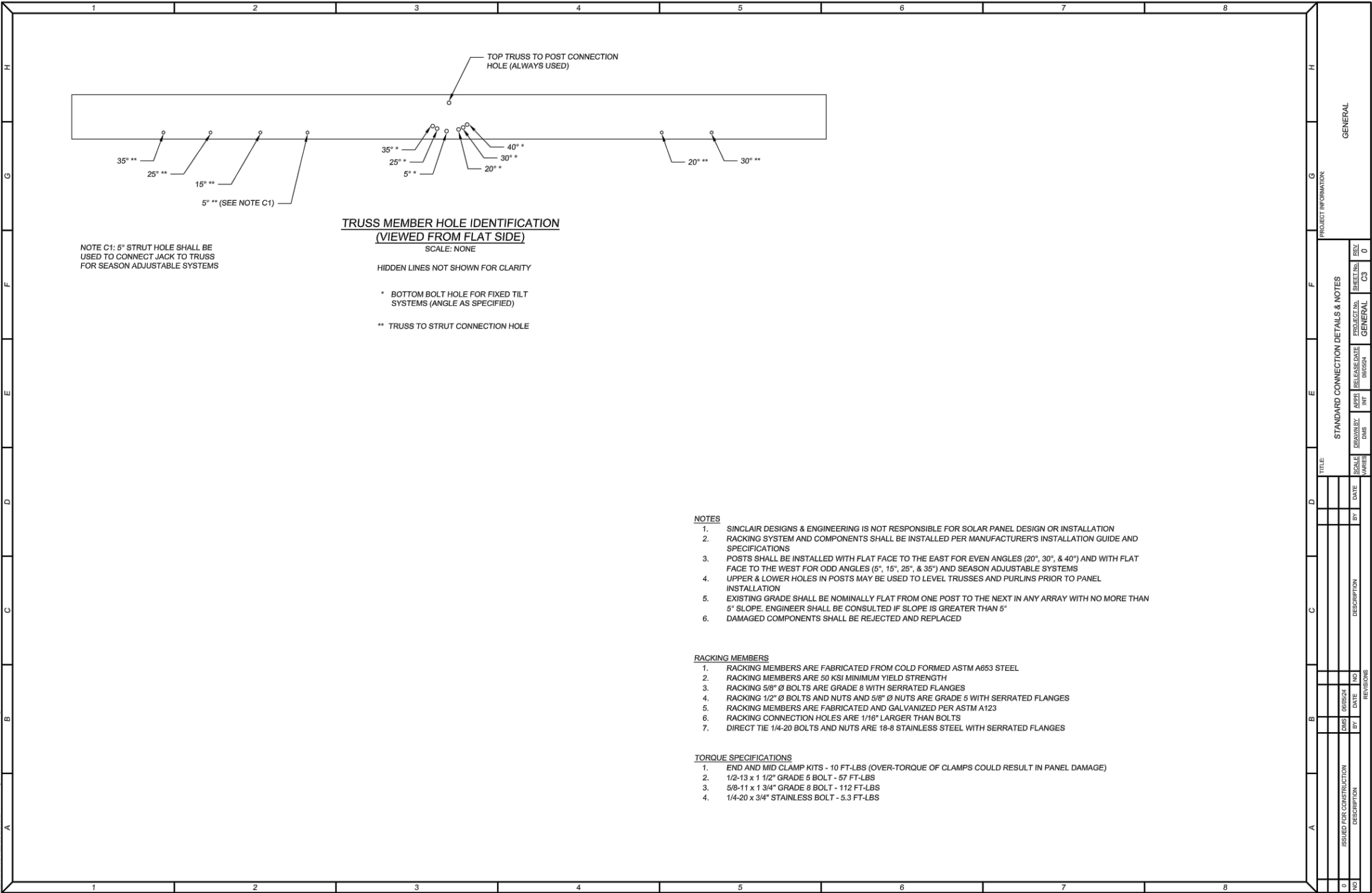
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50.857 KW AC (CEC)



ELECTRONIC FILE LOCATION: DISCREET/AmiCad Master Files/Dmiley



PLOT DATETIME: 6/7/2024 8:10 AM FILE NAME: Connection Details - DMS.dwg

UMSTEAD ELECTRIC

MODULES / INVERTER(S) / OPTIMIZERS

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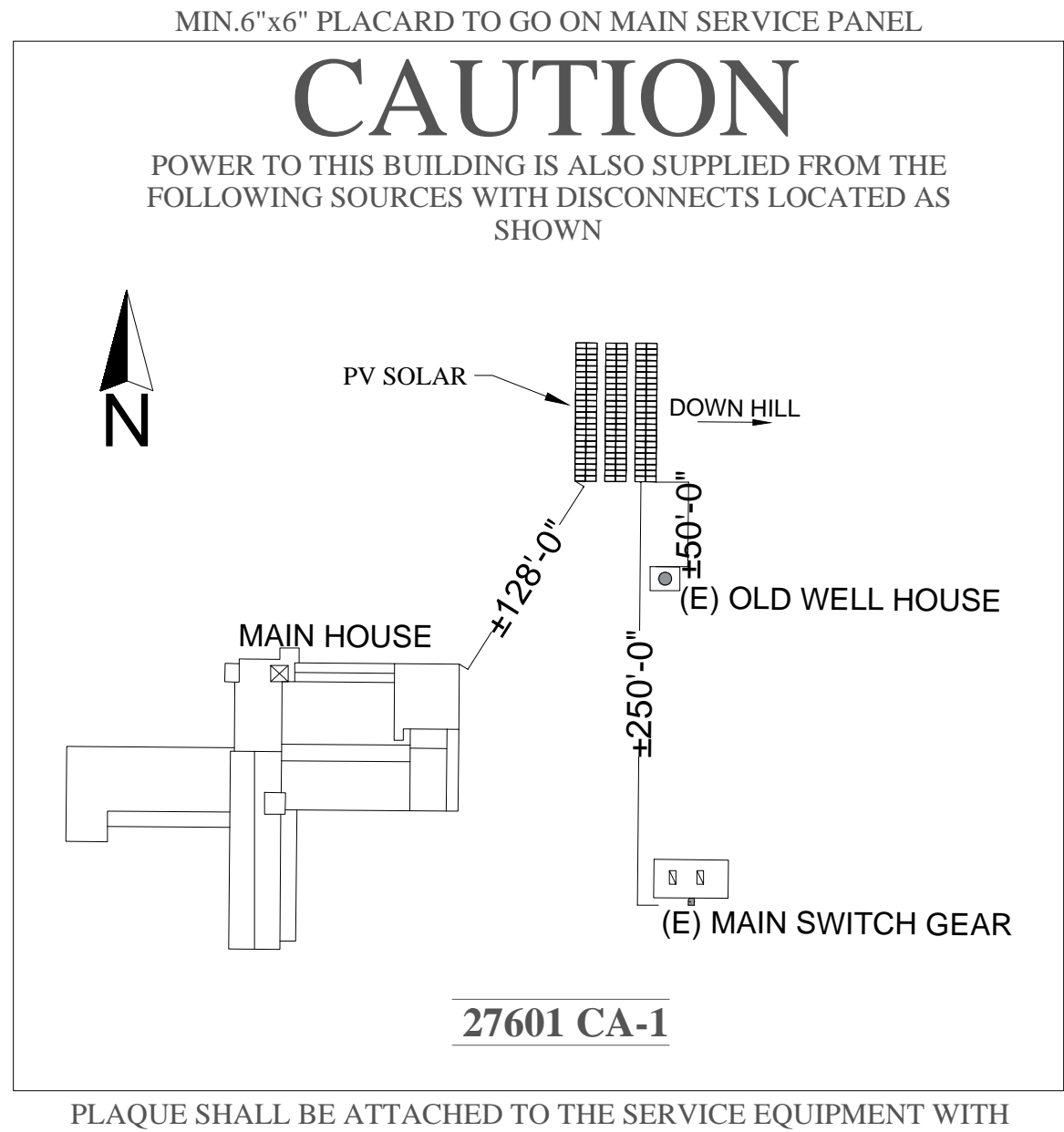
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- NOTES
- ARTICLES 690 AND 705 MARKINGS SHOWN HEREON
 - ALL MARKINGS SHALL CONSIST OF THE FOLLOWING:
 - UV RESISTANT SIGN MATERIAL WITH ENGRAVED OR MACHINE PRINTED LETTERS OR ELECTRO-PLATING
 - RED BACKGROUND COLOR WITH WHITE TEXT AND LINE WORK
 - ARIAL FONT
 - ALL SIGNS SHALL BE SIZED APPROPRIATELY AND PLACED IN THE LOCATIONS SPECIFIED.
 - SIGNS SHALL BE ATTACHED TO THE SERVICE EQUIPMENT USING PERMANENT ADHESIVE, POP-RIVETS, OR SCREWS



WARNING
INVERTER OUTPUT CONNECTION DO NOT
RELOCATE THIS OVER CURRENT DEVICE

**CAUTION: SOLAR ELECTRIC
SYSTEM CONNECTED**

CEC690.15,CEC690.13(B)
BLACK TEXT WITH
YELLOW BACKGROUND

**WARNING:
PHOTOVOLTAIC POWER SOURCE**

CEC690.13.G3&CEC690.13.G.4
TO BE PLACED AT LEAST EVERY
10FT WHITE LETTERS WHITE
RED BACKGROUND.

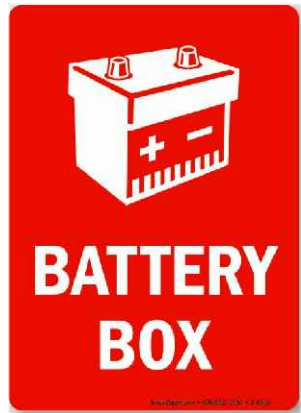
SOLAR DISCONNECT

CEC690.13.(B)
WHITE LETTERS WHITE
RED BACKGROUND.

WARNING

ELECTRICAL SHOCK HAZARD
A GROUNDED FAULT IS INDICATED,
NORMALLY GROUNDED CONDUCTORS
MAY BE UNGROUNDED AND ENERGIZED

CEC690.35(F)
BLACK OUTLINE WITH BLACK TEXT /
WARNING IS IN BLACK TEXT AND
ORANGE BACKGROUND



PHOTOVOLTAIC SYSTEM AC DISCONNECT
RATED AC OPERATING CURRENT **L.S.T.** AMPS
AC NOMINAL OPERATING VOLTAGE **240** VOLTS

CEC 690.54
WHITE LETTERS WITH RED BACKGROUND

WARNING

ELECTRICAL SHOCK HAZARD

TERMINALS ON BOTH LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

DC VOLTAGE IS ALWAYS PRESENT
WHEN SOLAR MODULES ARE
EXPOSED TO SUNLIGHT

CEC690.17(E)
BLACK OUTLINE WITH BLACK TEXT /
WARNING IS IN BLACK TEXT
AND ORANGE BACKGROUND

WARNING

ELECTRICAL SHOCK HAZARD
THE DC CONDUCTORS OF THIS
PHOTOVOLTAIC SYSTEM ARE
UNGROUNDED AND MAY BE
ENERGIZED

CEC690.35(F)
BLACK OUTLINE WITH BLACK TEXT /
WARNING IS IN BLACK TEXT AND
ORANGE BACKGROUND

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MODULES / INVERTER(S) /OPTIMIZERS

(144)HYUNDAI SOLAR HIS-S400YH(BK) 400W
(2)SOL-ARK C&I HYBIRD 30K-3P-208V
(36) DEKA DD5300 HIGH VOLTAGE
DURATION 5.3 BATTERIES

SYSTEM SIZE:

57.600 KW DC (STC)
52.430 KW DC (PTC)
50.857 KW AC (CEC)

PROJECT: PHONE# 831 214 3497

CARMELITE MONASTERY

27601 CA-1

CARMEL, CA 93923

OCCUPANCY TYPE: A GROUP:A-3

APN# 243-101-002-000

36.523111349, -121.9228852910

UMSTEAD ELECTRIC
602 S 1ST ST.
KING CITY, CA 93930
PHONE: 831 214 3497

CONTRACTOR: TED UMSTEAD

STATE LICENSE # 778831
LICENSE CLASS C-10
EXPIRATION DATE 05/31/2026

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HD HYUNDAI SOLAR MODULE

YH
SERIES

Dual Black Max

HiS-S400YH(BK) HiS-S405YH(BK) HiS-S410YH(BK)



Bifacial Cells
132



More Power
Generation
In Low Light



All black Module
For Sleek Design
(Black Meshed
T-Backsheet)



Hyundai Cell



Maximized Power
Generation

Increased total power output through capturing light from both the front and back of Bifacial solar modules. Back side power gain up to 25% of the front output depending on PV system design.



Mechanical Strength

Tempered glass and reinforced frame design withstand rigorous weather conditions such as heavy snow(5,400Pa) and strong wind(5,400Pa).



Half-Cut &
Multi-Wire Technology

Improved current flow with half-cut technology and 9 thin wiring technology allows high module efficiency of up to 20.5%. It also reduces power generation loss due to micro-cracks.



UL / VDE Test Labs

HD Hyundai's R&D center is an accredited test laboratory of both UL and VDE.



Anti-LID / PID

Both LID(Light Induced Degradation) and PID(Potential Induced Degradation) are significantly reduced to ensure higher actual yield during lifetime.



Reliable Warranty

Global brand with powerful financial strength provide reliable 25-year warranty.

Hyundai's Warranty Provisions



- 25-Year Product Warranty
- Materials and workmanship



- 25-Year Performance Warranty
- Initial year : 98.0%
- Linear warranty after second year: with 0.54%p annual degradation, 85.0% is guaranteed up to 25 years

Certification



UL61730 certified by UL, Type 1(for Fire Class A)

About HD Hyundai Energy Solutions

Established in 1972, HD Hyundai Group is one of the most trusted names in the heavy industries sector and is a Fortune 500 company. As a global leader and innovator, HD Hyundai is committed to building a future growth engine by developing and investing heavily in the field of renewable energy.

As a core energy business entity of HD, HD Hyundai Energy Solutions has strong pride in providing high-quality PV products to more than 3,000 customers worldwide.



Electrical Characteristics

		Mono-Crystalline Type(HiS-S400YH(BK))		
		400	405	410
Nominal Output (P _{mp})	W	400	405	410
Open Circuit Voltage (V _{oc})	V	45.3	45.6	45.9
Short Circuit Current (I _{sc})	A	11.25	11.33	11.40
Voltage at P _{max} (V _{mp})	V	37.7	37.9	38.1
Current at P _{max} (I _{mp})	A	10.61	10.69	10.76
Module Efficiency	%	20.0	20.3	20.5
Cell Type	-	Mono crystalline, 9busbar		
Maximum System Voltage	V	1,500		
Temperature Coefficient of P _{max}	%/K	-0.347		
Temperature Coefficient of V _{oc}	%/K	-0.268		
Temperature Coefficient of I _{sc}	%/K	+0.032		

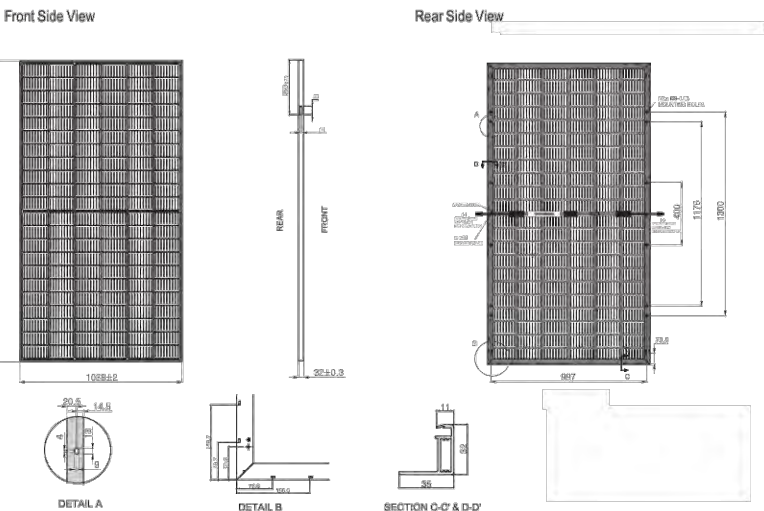
*All data at STC / Measurement tolerances P_{mp} ±3%; I_{sc} ; V_{oc} ±3%. Above data may be changed without prior notice.

Additional Power Gain from rear side		400	405	410
5%	W	415	425	431
15%	W	454	466	472
25%	W	494	506	513

Mechanical Characteristics

Dimensions	75.7 in (L) x 40.9 in (W) x 1.3 in (H) (1,924mm x 1,038mm x 32mm)
Weight	Approx. 46.5 lbs (21.1 kg)
Solar Cells	132 half cut bifacial cells (2 parallel x 66 half cells in series)
Output Cables	Cable : 47.2 in (1,200mm) / 4mm ² Connector : MC4 genuine connector
Junction Box	IP68, weatherproof, IEC certified (UL listed)
Bypass Diodes	3 bypass diodes to prevent power decrease by partial shade
Construction	Front : 3.2mm, High Transmission, AR Coated Tempered Glass Encapsulant : EVA Back Sheet : Black Meshed Transparent Backsheet
Frame	Anodized aluminum alloy type 6063

Module Diagram (unit : mm)

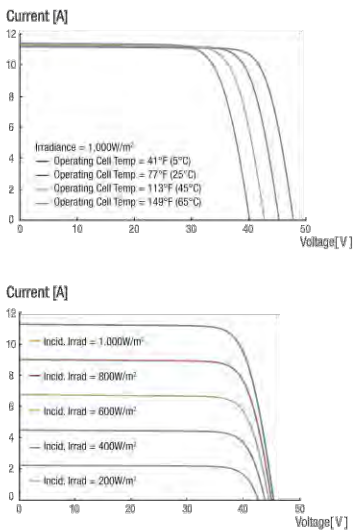


Installation Safety Guide

- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

Nominal Operating Cell Temperature	113.9°F ± 3.6°F (45.5°C ± 2°C)
Operating Temperature	-40°F ~ + 185°F (-40°C ~ + 85°C)
Maximum System Voltage	DC 1,500V
Maximum Reverse Current	20A
Maximum Test Load	Front 5,400 Pa (113 psf) Rear 5,400 Pa (113 psf)

I-V Curves



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Sol-Ark Commercial Energy Solutions

A global energy technology leader with over 6 generations of hybrid inverters

Deep engineering expertise in smart energy solutions

A track record of results. For over a decade, Sol-Ark has been solving complex energy challenges with innovation and technology

Powered by a vast ecosystem including thousands of distributors, installers, EPCs, integrators, and battery manufacturers

Trusted by global Fortune 500 companies in telecommunications, retail, big tech, restaurants, and the largest space agency in the world

DATASHEET

30K-208V

C&I Hybrid Inverter

Inverter Model Name:

30K-3P-208V

Sol-Ark Product SKU:

30K-3P-208V

Input Data (PV)	
Max. Allowed PV Power (STC)	39,000W
MPPT Voltage Range	150-500V
Startup Voltage	180V
Max. Input Voltage ¹	550V
Max. operating input current per MPPT	36A
Max. short circuit current per MPPT	55A
No. of MPP Trackers	4
No. of PV Strings per MPPT	2
Max. AC Coupled Input Power	30,000W
Output Data (AC)	
Nominal AC Voltage (3Φ)	120/208V
Grid Frequency	50 / 60Hz
Real Power, max continuous (3Φ)	30,000W
Max. Output Current	83.4A
Peak Apparent Power (10s, off-grid, 3Φ)	45,000VA
Max. Grid Passthrough Current (10min)	200A
Continuous Grid Passthrough Current	180A
Power Factor Output Range	+/- 0.8 adjustable
Backup Transfer Time	5ms (adjustable)
CEC Efficiency	96.5%
Max Efficiency	97.5%
Design (DC to AC)	Transformerless DC
Stackable	Up to 10 in parallel
Battery Input Data (DC)	
Battery Chemistry	Lithium iron phosphate
No. of Battery Inputs	2
Battery Input Terminal Rating	50A
Nominal DC Voltage	≥300V
Operating Voltage Range	160 - 500V
Battery Capacity Range	50 – 9900Ah
Max. Battery Charge / Discharge Current	100A (50A per input)
Charge Controller Type	3-Stage with Equalization
Grid to Battery Charging Efficiency	96.0%
Automatic Generator Start (AGS)	2 Wire Start - Integrated
BMS Communication ²	CANBus & RS485
General Data	
Dimensions (H x W x D)	894 x 528 x 295 mm (35.2 x 20.8 x 11.6 in)
Weight	80 Kg / 176 lb.
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-40 – 60°C, >45°C Derating
Noise	< 30 dB @ 25°C (77°F)
Idle Consumption - No Load	60W
Communication and Monitoring	Wi-Fi & LAN Hardware Included
Warranty ³	10 Years (15 Years)
Category	
Certifications and Listings (Grid Support Interactive Inverter)	UL 1741-2021 (UL1741SB), CSA C22.2 No 107.1-16, IEEE 1547-2018 & 1547a-2020 & 1547.1-2020 (SRD V2.0), UL 1741 CRD-PCS, UL1699B, CEC, SGIP ⁴
PV DC Disconnect Switch – NEC 240.15	Integrated
Ground Fault Detection – NEC 690.5	Integrated
PV Rapid Shutdown Control – NEC 690.12	Integrated
PV Arc Fault Detection – NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Surge Protection	DC Type II / AC Type III

1. See Installation Guide for more details on sizing array strings. The highest input voltage is based on the open-circuit voltage of the array at the minimum design temperature.
2. Active BMS communication is required for all lithium batteries. A list of compatible batteries can be found on our website.
3. 5-year extension is available for purchase by registered Gold level installers only.
4. Pending listing.

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BY MK BATTERY
DUAL VOLTAGE DD5300



Lithium Energy Storage System

DD5300

SINGLE MODULE LV/HV
DD5300



BASIC PARAMETERS	DD5300 LV/HV
Cell Type	LiFePO4 Lithium Iron Phosphate (LFP)
Battery System Capacity	5.3 kWh
Single Module Nominal Voltage	52 Vdc
Application	Dual Voltage LV/HV
Modules Expandibility	HV-16 in series (up to 9 cluster in parallel with DD21002 HVBOX) LV-15 modules in parallel without DD21001 Intelligent Can Bus Combiner
Cluster Net Capacity	556.5 kWh (LV) / 763.2 kWh (HV)
Voltage Range	48.5-1000 Vdc
Net Capacity	110 Ah
Usable Capacity	100 Ah
Dimensions L x W x H (mm)	593 x 470 x 163
Weight	126.3 lb (57.3 kg)
Charge / Discharge Current	110 A / 110 A (LV)
Discharge Current Peak	200 A (5 sec)
Depth of Discharge	Up to 100%
Communication Port	RS485, CAN, 232, (Wi-Fi external device)
HV String Modules	Up to 16
Discharge Temperature	-4 ~ +131°F (-20 ~ +55°C)
Charge Temperature	+14 ~ +131°F (-10 ~ +55°C)
Shelf Temperature	+14 ~ +122°F (-10 ~ +50°C)
Humidity	5% ~ 95%
Altitude	<3000 m
Design life	15 Years (77°F / 25°C)
Expected Cycle Life @ STC	Up to 7000 @ 86°F (30°C) (Testing is 1°C @ 100% DoD with at least 80% residual capacity)
Standards	UL 1973 IEC62619 CE UN38.3
Features	Pre-Charge + Fuse LV + Fuse HV + Auto Contactor + Dual BMS + Multi BMS FW Management
	Suitable for low voltage and high voltage systems, 4 protection levels with DD21002 HV BOX for HV application, BMS with real time balancing, adaptive charge/discharge CAN logic, 3 steps adaptive charging logic, 2xDI/DO programmable, mobile app for monitoring and remote control, update, debug, data save

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57.6 Kw Solar System
with 81.92 Kwh Battery

Carmelite Monastery

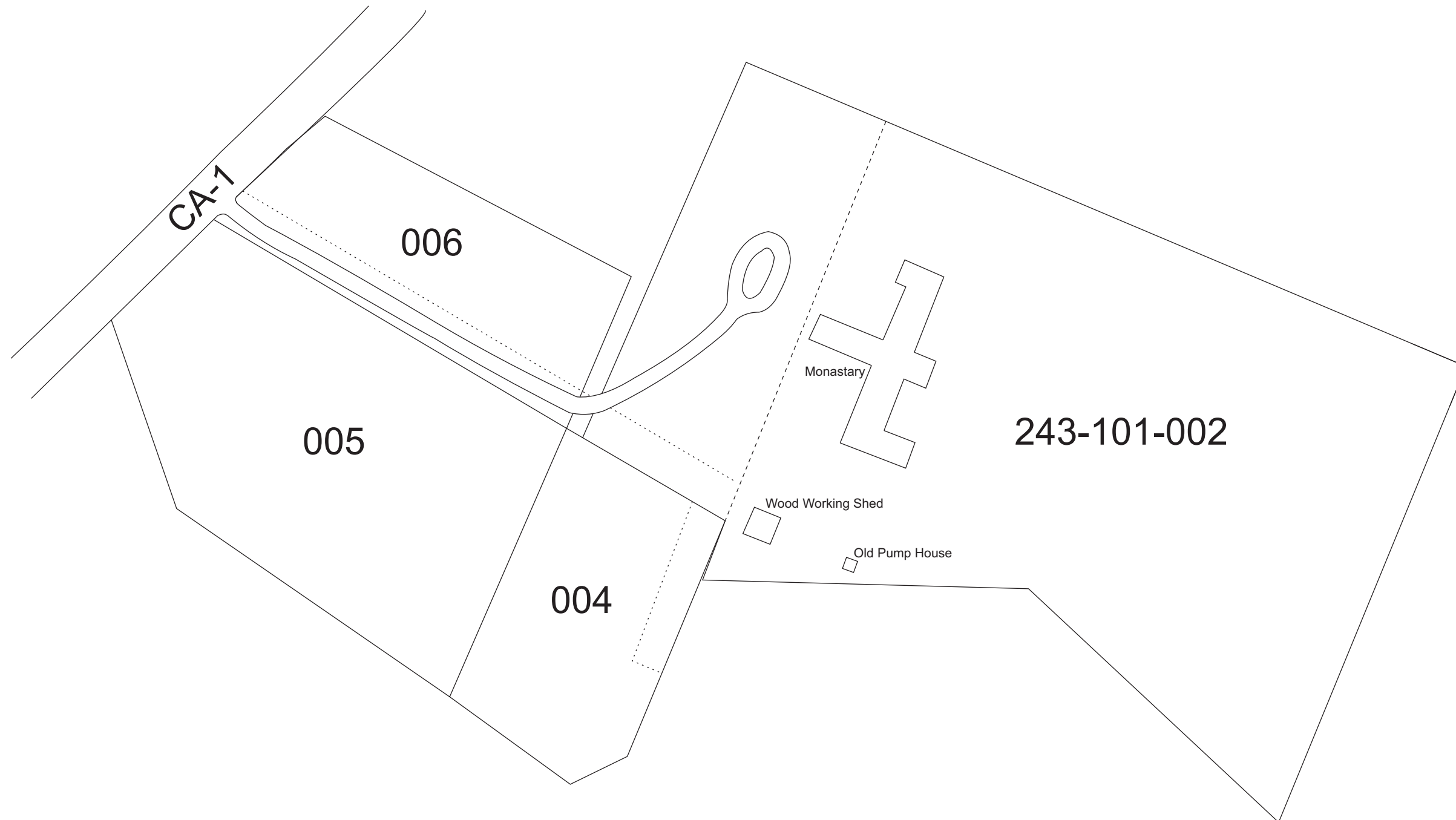
27601 CA-1
Carmel, CA 93923

APN: 243-101-002-000

OWNER:
Carmelite Monastery
27601 CA-1
Carmel CA 93923

Design and Installed By

Umstead Electric
PO Box 2160
King City, CA 93930
(831) 385-0411



Lot Size 548,420 sq ft
Bldg Size 13,071 sq ft



57.6 Kw Solar System
with 81.92 Kwh Battery

Carmelite Monastery

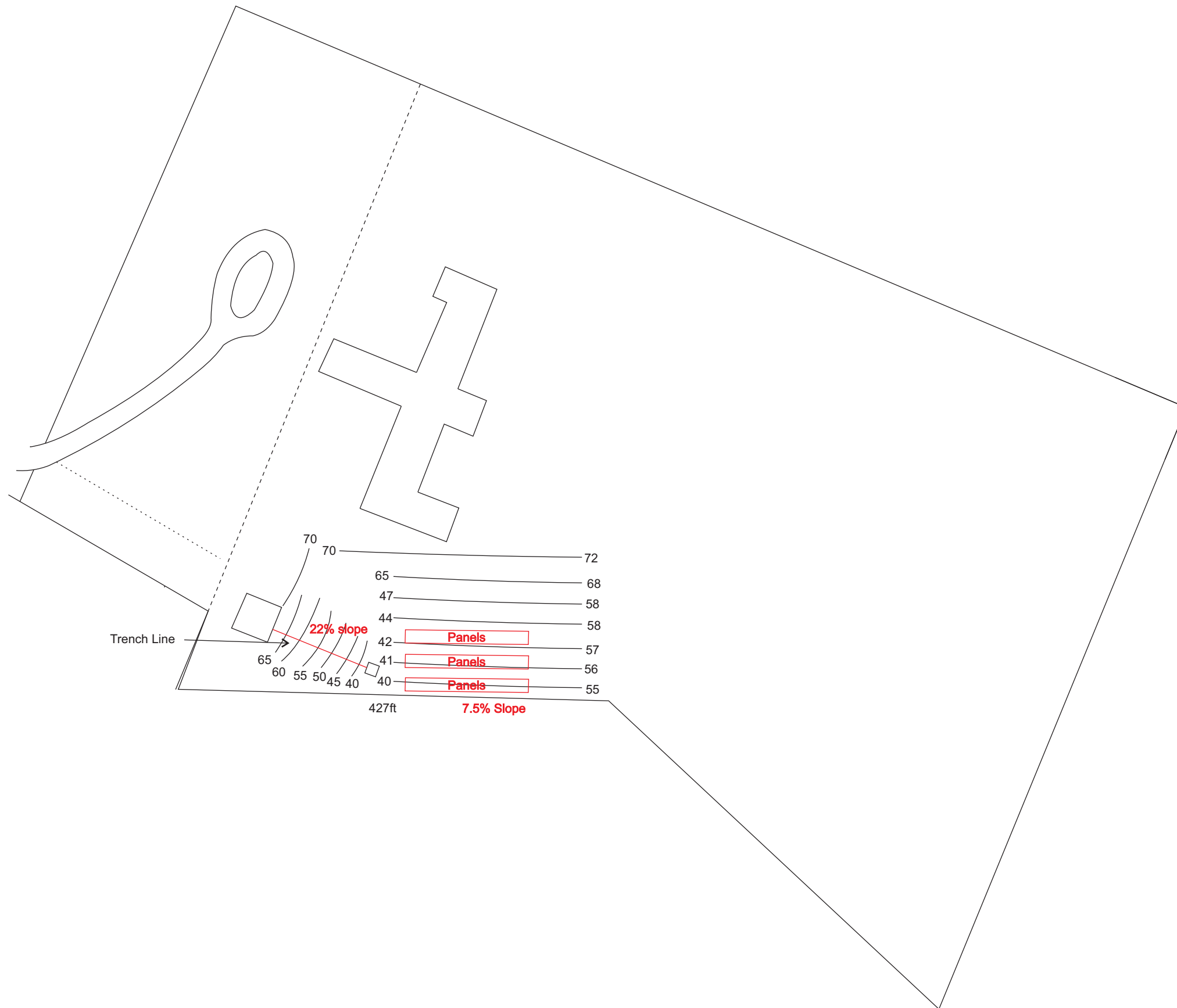
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57.6 Kw Solar System
with 81.92 Kwh Battery

Carmelite Monastary

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